

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of: APICELLA, Michael A. et al.  
 Title: NON-TOXIC MUTANTS OF PATHOGENIC GRAM-NEGATIVE BACTERIA  
 Docket No.: 875.001US2

**BOX PCT**

Assistant Commissioner for Patents  
 Washington, D.C. 20231


Sir:

We are transmitting herewith the following attached items (as indicated with an "X"):

- ☒ A Transmittal Letter to the DO/EO/US (and duplicate copy thereof).
- ☒ Preliminary Amendment.
- ☒ Check for filing fee - \$ 1562.00.
- ☒ Copies of: Published International Application No. WO 97/19688, which includes specification, claims, abstract, drawings and international search report, International Preliminary Examination Report with attached claim replacement page 69; Chapter II Demand for Examination, Notification of Receipt of Demand, PCT Request Form.
- ☒ A return postcard.

**The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 19-0743.**

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
 P.O. Box 2938, Minneapolis, MN 55402 (612-339-0331)

By:   
 Ann S. Viksnins  
 Reg. No. 37,748

**CERTIFICATE UNDER 37 CFR 1.10:**

"Express Mail" mailing label number: EM492672567US  
 Date of Deposit: 01 June 1998

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to BOX PCT, Assistant Commissioner for Patents, Washington, D.C. 20231.

By:   
 Name: Sarah Gowdy  
 (NEW FILING)

5.001US2

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371**

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

**09/077572**INTERNATIONAL APPLICATION NO.  
PCT/US96/18984INTERNATIONAL FILING DATE  
27 November 1996 (27.11.96)PRIORITY DATE CLAIMED  
01 December 1995 (01.12.95)

TITLE OF INVENTION NON-TOXIC MUTANTS OF PATHOGENIC GRAM-NEGATIVE BACTERIA

APPLICANT(S) FOR DO/EO/US APICELLA, Michael A. et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☒ has been transmitted by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ have been transmitted by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☒ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.  
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:

Copies of: Published International Application No. WO 97/19688, which includes specification, claims, abstract, drawings and international search report; International Preliminary Examination Report with attached claim replacement page 69; Chapter II Demand for Examination; Notification of Receipt of Demand; PCT Request Form.

Check for filing fee - \$1562.00 and a return postcard.

"Express Mail" mailing label number: EM 4926 7256 745

Date of Deposit: 01 June 1998  
I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231

Printed Name

Sarah Gowdy

Signature

Sarah L. Gowdy

17. ☒ The following fees are submitted:**BASIC NATIONAL FEE (37 CFR 1.495(a)(1)-(5)):**

Neither international preliminary examination fee (37 CFR 1.482)  
nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO  
and International Search Report not prepared by the EPO or JPO. .... \$1070.00

International preliminary examination fee (37 CFR 1.482) not paid to  
USPTO but International Search Report prepared by the EPO or JPO ..... \$930.00

International preliminary examination fee (37 CFR 1.482) not paid to USPTO  
but international search fee (37 CFR 1.445(a)(2)) paid to USPTO ..... \$790.00

International preliminary examination fee paid to USPTO (37 CFR 1.482)  
but all claims did not satisfy provisions of PCT Article 33(1)-(4) ..... \$720.00

International preliminary examination fee paid to USPTO (37 CFR 1.482)  
and all claims satisfied provisions of PCT Article 33(1)-(4) ..... \$98.00

**ENTER APPROPRIATE BASIC FEE AMOUNT =**

\$ 1070.00

Surcharge of \$130.00 for furnishing the oath or declaration later than ☐ 20 ☒ 30  
months from the earliest claimed priority date (37 CFR 1.492(e)).

\$ 130.00

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	29 - 20 =	9	X \$22.00	\$ 198.00	
Independent claims	5 - 3 =	2	X \$82.00	\$ 164.00	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$270.00	-0-	

**TOTAL OF ABOVE CALCULATIONS =**

\$ 1562.00

Reduction of 1/2 for filing by small entity, if applicable. A Small Entity Statement  
must also be filed (Note 37 CFR 1.9, 1.27, 1.28).

\$ ---

**SUBTOTAL =**

\$ 1562.00

Processing fee of \$130.00 for furnishing the English translation later than ☐ 20 ☐ 30  
months from the earliest claimed priority date (37 CFR 1.492(f)).

\$ ---

**TOTAL NATIONAL FEE =**

\$ 1562.00

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be  
accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +

\$ ---

**TOTAL FEES ENCLOSED =**

\$ 1562.00

Amount to be:  
refunded \$

charged \$

a. ☒ A check in the amount of \$ 1562.00 to cover the above fees is enclosed.

b. ☐ Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ to cover the above fees.  
A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any  
overpayment to Deposit Account No. 19-0743. A duplicate copy of this sheet is enclosed.

**NOTE:** Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Ann S. Viksnins  
Schwegman, Lundberg, Woessner & Kluth  
P.O. Box 2938  
Minneapolis, Minnesota 55402  
United States of America

SIGNATURE:

Ann s. Viksnins

NAME

37,748

REGISTRATION NUMBER